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# Impact of Adverse Childhood Experiences on Academic Achievement of School-Aged Learners

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Impact of Adverse Childhood Experiences on Academic Achievement of School-Aged Learners

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ED 590: Research and Complete Capstone Cohort 782

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### Abstract

Adverse childhood experiences (ACEs) are part of ongoing discussions among educators identifying at-risk students in need of additional support for academic success. This paper explored the cross-sections of academic achievement and ACEs within academic settings. This study featured a literature review with qualitative and quantitative studies on ACEs and their relationship to chronic absenteeism, retention, dropout rates, behavioral problems, and academic achievement in the United States of America (USA). In addition, studies on trauma, resilience, and mental health are used to further explain academic achievement in relation to ACEs. The focus question of this study is: How do adverse childhood experiences directly impact the academic achievement of school-aged learners? The paper finds that ACEs ultimately affects academic achievement of school-aged learners due to the lasting effect of ACEs and human development. It also finds that the direct impact of ACEs on academic achievement can be altered through forms of identification and proper guidance from educational members. Further, the paper suggests that through proper modes of identification and guidance, school-aged learners identified as having ACEs can thrive in educational settings.

*Keywords:* academic achievement, adverse childhood experiences, chronic absenteeism, retention, school-aged, trauma

## Impact of Adverse Childhood Experiences on Academic Achievement of School-Aged Learners

**Chapter One: Introduction**

The ongoing educational issue of student achievement has been a yearly discussion for school districts looking to close the achievement gap. Many educational factors contribute to the understanding of student success in the classroom and overall student achievement. These factors are continually being researched to find important educational answers in regard to student achievement. One educational topic that has been researched and is continually being researched are ACEs and the impact ACEs have on student achievement in school-aged learners.

ACEs are defined as traumatic experiences in a person's life occurring before the age of 18 that the person remembers as an adult (Minnesota Department of Health, 2011). Examples of ACEs are physical abuse, mental abuse, sexual abuse, emotional abuse and neglect, intimate partner violence, mother treated violently, substance misuse within the household, household mental illness, parental separation or divorce, and incarcerated household member. An analysis from the 2011-2012 National Survey of Children's Health noted that 48% of United States children have experienced at least one of the examples of ACEs. 48% of United States children translated into an estimated 34,825,978 children nationwide. 22.5% of students ages 0 to 17 nationwide have reported two or more ACEs (Bethell, Newacheck, Hawes, & Halfon, 2014). These specific examples and data led to research in regard to adverse childhood experiences and their effects on student achievement.

ACEs and how they affect student achievement in school-age learners is a topic that has been researched from multiple perspectives (Bethell, 2014; Blodgett, 2014; Brookins, 2016; Hunt, 2017; Iachini, 2016; Schilling, 2007; Stempel, 2017). Topics identified and discussed from research in relation to ACEs and student achievement are chronic absenteeism, retention, dropout

rates, behavioral problems, and academic development. Accumulation of risk factors in childhood greatly increased the odds of poor outcomes. Identified risk factors provided important insight into the educational impact that ACEs has on school-aged learners in relation to student achievement (Marie-Mitchell & O'Connor, 2013).

### **Scope of Research**

Research conducted on ACEs followed various paths identifying underlying factors in student achievement. The majority of research revolved around ACEs and specific factors that contributed to student achievement. Research focused on chronic absenteeism, retention, dropout rates, behavior problems, and academic development in the United States of America (USA) are the primary sources related to the impact of ACEs on student achievement. In addition, studies on trauma, resilience, and mental health were used to describe how ACEs affect school-age learners and student achievement.

In the paper, qualitative and quantitative research covered school-aged learners in grades kindergarten through grade 12. Studies on chronic absenteeism, retention, and dropout rates explained that nearly 14% of school-age children are chronically absent from school each year (Iachini, Petiwala, & Dehart, 2016) and more than one million students drop out of high school each year (Stempel, Cox-Martin, Bronsert, Dickinson, & Allison, 2017). Studies on trauma, resilience, and mental health explained that students with ACEs have lasting effects of mental health (Porche, 2011; Bethell, 2014). These studies, along with many others, provided valuable insight into how ACEs affect school-aged learners.

Peer reviews in professional journals are used to identify academic efforts, practices, and programs combating ACEs in educational settings. Qualitative and quantitative studies, exploratory studies, as well as peer-reviewed and professional journals indicated that ACEs

directly impacted student achievement. The research identified ACEs and underlying causes of declining student achievement. The research also highlighted the direct impact of ACEs and their impact on academic achievement in school-aged learners.

### **Importance of the Study**

The study of the impact of ACEs on the academic achievement of school-aged learners can benefit all schools (Illinois ACEs Response Collaborative, n.d.). Understanding students, their backgrounds, and how they learn could be beneficial in an educational setting.

Relationships created by teachers have the ability to improve student learning by creating an environment that supports learning where students are motivated to be actively engaged in the classroom (McCormick, O'Connor, Capella, & McClowry, 2013).

As previously stated, 48% of United States children have experienced at least one example of ACE which translates into an estimated 34,825,978 children nationwide. Nationwide, 22.5% of students ages 0 to 17 have reported two or more ACEs (Bethell, Newacheck, Hawes, & Halfon, 2014). The percentage of school-aged learners in each school district affected by ACEs can vary. ACEs contributed to many factors of academic achievement. Understanding the factors and how ACEs impacted students is key in working towards finding proper guidance for students to prosper academically (Illinois ACEs Response Collaborative, n.d.).

### **Research Questions**

The outcome obtained from the literature review revolves around the essential question: Do adverse childhood experiences impact student achievement in school-aged learners? To address the essential question, two questions are the main focus of research. Do adverse childhood experiences contribute to the cause of drop-out rates, retention, chronic absenteeism, academic development delays, and behavioral problems? Do adverse childhood experiences



relating to trauma, mental health, and lack of resilience directly correlate to poor academic achievement?

### **Connection to Grand Tour Question**

The grand tour question stated by the program reads, in light of what is known about how children learn and educational policy and practice, how shall educators best lead in educational settings today in order to impact student learning, can lead to an understanding of ACEs and their impact on student achievement in school-aged learners? A connection to the grand tour question is important for educational leaders interested in mental health and its tie to academic achievement. Therefore, educational leaders vying for a direction to increased student achievement are able to identify determining factors and solutions surrounding ACEs and their relation to overall academic ability.

Educational leaders must be mindful about students who have experienced multiple adversities (Marie-Mitchell & O'Connor, 2012). It can be more difficult to engage students who consistently require additional supports, and often need more attention. Identifying the factors of ACEs, how they pertain to student learning and achievement, and how to provide the correct support is essential in helping students who experience adversities in the form of ACEs (Illinois ACEs Response Collaborative, n.d.).

### **Definition of Terms**

*Academic achievement* is the current level of academic learning for a student measured by academic success. More specifically, academic achievement is identified by the percentage of students at a school that currently meets or exceeds grade level standards (Minnesota Department of Education, 2017). Academic achievement is essential as it tracks educational data in reference to a student's ability to complete grade level standards. Academic achievement is tracked to

provide site level data acknowledging academic achievement of schools, and school districts (Minnesota Department of Education, 2017).

*Adverse childhood experiences* are defined as traumatic experiences in a person's life occurring before the age of 18 that the person recalls as an adult (Minnesota Department of Health, 2011). Examples of ACEs are physical abuse, mental abuse, sexual abuse, emotional abuse and neglect, intimate partner violence, mother treated violently, substance misuse within the household, household mental illness, parental separation or divorce, and incarcerated household member. Tracking ACEs can be done through surveys, questionnaires, discussions with students, or by any means that collects data (Illinois ACEs Response Collaborative, n.d.).

*Chronic Absenteeism* is missing 10% of or more of the school year which is close to 15 school days (Sugrue, Zuel, & LaLiberte, 2016). Research shows that students who are chronically absent in earlier grades are associated with lower academic achievement in later grades (Chang & Romero, 2008). Over seven million or 16% of the student population missed 15 or more school days in 2015-2016 (United States Department of Education, 2016). Chronic absenteeism is an indicator of ACEs portrayed in students. Students who are labeled as chronically absent often times are in need of academic interventions because of missed educational time (Sugrue et al., 2016).

*Retention* is the option of having students repeat the grade level of the current school year. Students are required to show their competence in standardized, formal, and informal assessments to show that they have met the standards for their grade (Renaud, 2013). Students who do not meet the appropriate standards are often times a candidate for retention. In terms of retention, grade retention is the opposite of social promotion where students continue with their age peers regardless of academic performance (Encyclopedia of Children's Health, n.d.).

*Resilience* is individual characteristics that contribute to positive adaption in the presence of adversity (Luthar, Cicchetti, & Becker, 2000). Resilience is needed when situations affect the normalcy of life. Resilience in regard to ACEs can happen when one or more of the examples of ACEs are present in the life of school-aged learners. These examples can either derail the learning of the individual or show resilience to overcome the adversity of ACEs (Bethell, Gombojav, Solloway, & Wissow, 2016).

*School-aged* is the range of ages of children attending school (Hill et al., 2016). Normally this refers to students in grades preschool through 12th grade. Ages for students are dependent on which grade level they are attending. Students who are not attending school are not considered school-aged. School-age is different than school-aged because school-age refers to the age of the individual attending school.

*Trauma* refers to adverse childhood experiences and their effect on the individual (Sciaraffa, Zeanah, & Zeanah, 2017). Trauma in regard to ACEs can be identified during ACEs screenings in order to find the exact traumatic event that occurred in a person's life (Finkelhor, 2018). Identified trauma allows ACEs response teams, including school counselors and teachers, to correctly relate appropriate help in response to traumatic events (Out of School Youth, n.d.).

## **Summary**

The importance of understanding ACEs and their relationship to student achievement is the true purpose of this research. ACEs and their relationship to chronic absenteeism, retention, dropout rate, behavioral problems, and academic development indicate a negative effect on student learning. Research on resilience, trauma, and mental health can work to combat ACEs in methods that are beneficial for the educational leaders to find improved overall academic achievement of school-aged learners.

Chapter Two consists of a literature review focused on studies, methodologies, key findings, and limitations in relation to ACEs. Chapter Three provides a summary of the literature review focused on the importance of the topic and findings answering the research questions. Chapter Four highlighted the insights and understandings gained from the research and provides specific examples of how the research yields best educational practices.

### **Chapter Two: Literature Review**

The original ACE study was conducted in the years 1995 to 1997 by the Kaiser Permanente Company comparing the relationship of health risk behavior and disease in adulthood to the wide range exposure of childhood emotional, physical, or sexual abuse, and household dysfunction during childhood. The results of the study indicated that there was a strong correlation between the exposure to abuse or household dysfunction during childhood and multiple risk factors for several of the leading causes of death in adults (Felitti et al., 1998). The Kaiser Permanente study was the first study focused on ACEs and their relation to life development that impacted trauma and experiences from childhood to adulthood. The results of the original study have led to additional studies focused on ACEs and their relationship to the overall development of an individual.

This chapter focuses on the impact of adverse ACEs in school-aged learners. Studies focus on chronic absenteeism, retention, dropout rates, behavioral problems, and academic development further explain the impact of ACEs on academic achievement of school-aged learners. In addition, the relation of trauma, resilience, and mental health to academic achievement and their impact directly correlating to ACEs explain how to ACEs in school-aged learners.

**Chronic Absenteeism**

Chronic absenteeism has been an ongoing discussion among educational leaders, schools, and districts (Sugrue et al., 2016). Chronic absenteeism has been identified through state and federal laws and mandates as a problem among school-age learners. Chronic absenteeism among elementary school-aged students has gained attention from researchers and policymakers because of its relationship to long-term negative educational outcomes (Sugrue et al., 2016).

A perception among educators stated that students who are absent from school are more likely to achieve lower academic scores than students who routinely are present in schools (Gottfried & Kirksey, 2017). The perception has led to studies focused around chronic absenteeism and its relationship to ACEs and student achievement in school-aged learners. Research conducted by Sugrue et al. (2016) indicated that chronic absenteeism is a problem among school-aged learners. The problem identified as chronic absenteeism have been ongoing and generating more identification in its relationship to ACEs.

A quantitative study conducted by Stempel et al. (2017) was used to examine the association between chronic school absenteeism and ACEs among school-aged children. The study sampled 58,765 students ages six to 17 years who were enrolled in school. Parents of the 58,765 students answered the study designed around the students and their relation to the nine ACEs questions. The data explained that students who had at least one or more ACEs were associated with chronic absenteeism compared to children with no ACEs. The study also explained that students who had more than one ACE were more likely to have chronic absenteeism than students with one ACE. This led to an understanding that chronic absenteeism is directly linked to students identified as having one or more ACEs.

The research of chronic absenteeism is important to discuss because in the United States nearly 14% of school-aged children are chronically absent from school each year (United States Department of Education, 2016). Chronic school absenteeism is common among school-aged children who witness neighborhood violence, live with family members using substances, or have multiple ACEs. School-aged learners who are routinely absent from school are at risk academically, as well as at risk for dropping out of school (Stempel et al., 2017).

Limitations described by Stempel et al. (2017) indicated that the ACEs questions asked in the study do not address the severity of ACEs exposure. Although the limitations expressed that the severity of the exposure could affect school-aged learners, Stempel et al. (2017) noted that multiple ACEs are linked to chronic absenteeism. Ultimately, being chronically absent from school is tied with missed educational opportunities that could possibly lead to a decline in school achievement (Chang & Romero, 2008).

### **Improving Chronic Absenteeism**

In order to improve chronic absenteeism, educational leaders familiarized themselves with focusing on building relationships with families of chronically absent students, educating families about the importance of attendance, and promoting interventions when needed (Stempel et al., 2017). These three strategies could be the foundation for generating a framework that improved chronic absenteeism. Along with a framework, identifying the correlation between ACEs and absenteeism helped put an emphasis on providing positive interventions to improve chronic absenteeism. In addition, building a concrete approach in improving chronic absenteeism has the ability to help students with ACEs through positive attendance interventions (Valencia, 2018).

Schools that have a multi-tiered support system to increase attendance and decrease chronic absenteeism know the needs of their school and how a proactive approach can improve student attendance (Valencia, 2018). Multi-tiered support systems consist of attendance tracking, attendance advocates focused on a tiered attendance system, student self-tracking, incentives, and a specific framework in place focused solely around student attendance and family relationships. Using multi-tiered support systems lead to a foundation in advocating for positive attendance rates (Valencia, 2018). Not all parts of a multi-tiered support system need to be used by school districts. Programs and frameworks should be designed around the data driven needs of the district (Genao, 2015).

A quantitative study completed by Brookins (2016) tracked 20 students in grades nine through 12 who were labeled as chronically absent. Brookins (2016) used a framework designed around daily attendance monitoring, parent contact for absences, check-ins, student self-tracking, and incentives. Brookins (2016) noted that 8% of participants in the survey improved attendance compared to the prior year. It was also noted that 75% of those students were not chronically absent. The quantitative study by Brookins (2016) explained that with a framework designed around promoting positive attendance, chronic absenteeism could improve.

Each school district is different regarding how it addresses student absences (National Chang & Romero, 2008). Chang and Romero (2008) suggested that schools could partner with community agencies and families to understand and address the factors contributing to absences. Ongoing partnerships among schools, families, and community agencies to implement comprehensive approaches over time ensured all students have the opportunity to attend school each day. Having a specific framework in place to combat ACEs helped curve the problem of chronic absenteeism (Sugrue et al., 2014)

In addition, a framework helped educational leaders focus on keeping attendance problems low and attendance rates high (Sugrue et al., 2014). Educational leaders who have created a concrete framework designed around an idea and policy have helped students identified as having ACEs. Concrete frameworks ensured that schools are able to track the positives and negatives of their framework and adjust according to the needs of their students and the needs of the district as a whole (Genao, 2015).

### **Retention**

Retention has been a heated topic identified as either positive or negative by many educators and districts. Retention is the strongest predictor of high-school dropout status (Renaud, 2016). Oftentimes, educational leaders conceptually view retention at a young age as unneeded because the educational mind of a student is underdeveloped (Berenson et al., 2008). Most of the time, students in primary grades who are candidates for retention are passed onto the next grade level per parent request or desire to keep the student with the same grade level despite academic performance. Students who are in upper-level grades have stricter guidelines per graduation requirements and are not given the same freedom as primary students (Berenson et al., 2008).

Students that are deemed as a candidate for retention must be passed through the proper guidelines of a district in order to be retained (Sparks, 2012). Students who are retained often times appear to do better in the short term but tend to be at a greater risk for failure in the future (Shepard & Smith, 1990). Districts who decide to retain school-aged learners should focus on student ACEs and how they pertain to their academic development (Blodgett & Lanigan, 2018).

Retention in regard to school-aged learners have been more evident in students exposed to ACEs (Bethell et al., 2016). Students with two or more ACEs are 2.67 times more likely to



repeat a grade in school compared to children without any of the experiences. Children without ACEs had 2.59 greater odds of usually or always being engaged in school, compared to students who had two or more ACEs (Bethell et al., 2016). Students with three or more ACEs are likely labeled as unable to perform at grade level (Balfanz, Byrnes, & Fox, 2013). Both research studies came to the conclusion that ACEs have a significant impact on student achievement and the opportunity for grade retention.

A descriptive exploratory study was completed by Iachini et al. (2016) that focused on the notion of ACEs and how ACEs affected students who repeated ninth grade. The study focused on surveying 13 students who repeated ninth grade and if the subjects fell into any of the ACEs categories described in the introductory paragraph of the literature review. Results of the research indicated that the majority of the participants in the survey experienced at least one ACE. In the study conducted by Iachini et al. (2016) research showed that having at least one ACE can increase the risks of repeating a grade. Iachini et al. (2016) also noted that a school-aged learner having more than one ACE increased the chance of retention.

One limitation in the study conducted by Iachini et al. (2016) indicated that the data identified in the research only reported on a small number of students who repeated the ninth grade. The small sample size of students contributed to generalizable results within the study. A larger sample size was needed to gain more insight into chronic absenteeism and its relation to ACEs in school-aged learners. Future research was also needed to construct identification in the differences between ACEs and experiencing trauma in school-related behaviors (Iachini et al., 2016).

**Delaying Retention**

Renaud (2016) claimed educational leaders consider a multitude of factors when considering grade retention for their struggling students. One of the factors educational leaders can consider is ACEs. Students with one or more ACE, as indicated in the literature review, show an increased risk for repeating a grade (Iachini et al., 2016). Identified factors of why the student is a candidate for retention and relating it to the possible factors are key in deciding how to help academic achievement (Blodgett & Lanigan, 2018).

Identifying at-risk students in terms of ACEs help educational leaders design appropriate intervention strategies to promote student achievement (Out of School Youth, n.d.). Intervention strategies, such as building relationships and creating a safe learning environment, are positive interventions educators can use with students identified as having ACEs. Interventions used in accordance with counseling teams and teachers provide support to students with ACEs aimed toward improved student achievement in school-aged learners (Out of School Youth, n.d.).

**Dropout Rates**

Dropping out of high school is associated with many negative outcomes (Breslow, 2012). Dropping out of school has a lifetime impact on individuals later in life. The impact of ACEs on school performance has a lasting impact on achievement (Breslow, 2012). For high school dropouts, the national unemployment rate is 12% (Breslow, 2012). Median earnings of adults ages 25 through 34 who worked full time, year-round, and who had not completed high school were lower than the earnings of those with higher levels of educational attainment. In addition, dropouts age 25 and older were reported being in worse health than adults who were not dropouts (National Center for Educational Statistics, 2019).

According to the National Center for Education Statistics (2019), in the 2016-2017 school year, on-time public high school graduation rates in the United States were at 85%. The public high school graduation rate slowly improved since it was first measured seven years earlier. In 2017, there were 2.1 million students who failed to receive their high school diploma between the ages of 16 and 24. The overall dropout rate coincided with the improvement of on-time high school graduation rates. Data showed that public high school dropout rates have decreased from 9.7% in 2006 to 5.4% in 2017.

ACEs associated with poor academic achievement contributed to dropout rates in the United States of America (USA). Iachini et al. (2016) identified that patterns related to the timing of ACEs and the occurrence of behaviors signaled disengagement in school. Poor school disengagement and the “want” to learn were significant factors in relation to disengagement and student dropout. Cumulative ACEs were associated with poorer school engagement and grade completion (Bellis, Lowey, Leckenby, Hughes, & Harrison, 2013).

As identified by Bellis et al. (2013) and Iachini et al. (2016), school-aged learners who experienced some form of ACEs should be identified as a potential candidate for poor academic performance and the potential to drop out. Continued professional development for teachers regarding struggling students enabled educational leaders to provide support to teachers. Frameworks identifying school-aged learners with ACEs and providing a solid foundation of interventions and services provided assistance in lowering the dropout rate of school-aged learners (Renaud, 2013).

### **Behavioral Problems**

Problem behaviors have been an important topic to research regarding ACEs and the student achievement of school-aged learners. Internalizing (e.g., anxiety) and externalizing (e.g.,

aggression) problem behaviors have been observed to have a higher likelihood of emerging after exposure to childhood adversity (Hunt et al., 2017). Students identified as experiencing adversity face many challenges (Child Welfare Information Gateway, 2015). Students who have experienced much adversity are more difficult to engage consistently and require additional supports. Where problem behaviors originated from, and how to address the problem behaviors, are important educational issues when the behaviors affect student achievement (Illinois ACEs Response Collaborative, n.d.).

A quantitative study by Hunt et al. (2017) assessed the effect of ACEs and subsequent behavior problems of 3,000 children. The study found that children exposed to four or more ACEs were 33 times more likely to have a learning or behavior problem compared to children without ACEs exposure. Children exposed to ACEs could cause behavior problems in school-aged learners transitioned into an understanding that problem behaviors led to academic concerns. Even though Hunt et al. (2017) described and compared students with three or more ACEs, it was noted in the research that students with at least one ACE were at risk for behavioral problems.

Understanding that problem behaviors led to concerns in academic achievement are noted from the study by Hunt et al. (2017). Limitations noted by Hunt et al. (2017) identified unmeasured variables in the research that predict behavior problems, which in return, are also related to ACEs. The limitations provided a further emphasis on a future study of unmeasured variables and their correlation to ACEs. A future study would provide additional information into which variables are related to which ACE.

Children with three or more ACEs have been typically at higher odds for an ADHD diagnosis than children who have one or two ACEs (Hunt et al., 2017). Research conducted by

Hunt et al. (2017) identified students who experience three or more ACEs are more likely to display internalizing or externalizing behaviors warranting professional attention compared to children with two or fewer ACEs. Also, the research stated that students with ACEs are at greater risks to be diagnosed with attention-deficit hyperactivity disorder (ADHD) in children who have experienced ACEs than children who have experienced no ACEs. The study led to a conclusion that ADHD has a correlation with ACEs and its direct impact on behavior problems in school-aged learners (Hunt et al., 2017)

### **Improving Behaviors**

Students become more likely to develop mood disorders or have poor executive functioning and decision-making skills when exposed to ACEs at an early age (Nakazawa, 2016). ACEs caused internalizing and externalizing behaviors, as well as a higher risk for ADHD (Hunt et al., 2017). Identified factors related to ACEs have been important for educational leaders to understand and act on. Relating ACEs to problem behaviors and ADHD through research provided educational leaders and schools concrete evidence of how ACEs affect academic achievement in school-aged learners (Hunt et al., 2017).

An increasing number of ACEs in individuals directly related developing poorer coping skills compared to students who have a lower number of ACEs (Elroy & Hevey, 2014). Educational leaders that build and support self-regulation skills, change policies to emphasize ACEs in education, rethink discipline, and encourage strategies that keep students in school are examples of actions districts can take in response to ACEs (Illinois ACEs Response Collaborative, n.d.). Another example of a strategy educational leaders could use to improve unwanted behaviors are to provide caring relationships and safe and supportive environments in schools. Caring relationships and safe and supportive school environments help prevent and

mitigate the consequences of ACEs (Illinois ACEs Response Collaborative, n.d.). Focusing on how to address ACEs and working toward establishing emerging interventions such as trauma-informed curriculum and community-oriented strategies are key in addressing behavioral problems (Ford, 2017).

Educational leaders have a responsibility to take action and supporting students who are in need (Terrasi & Crain de Galarce, 2017). Educational leaders that emphasize teacher training in response to unwanted behaviors can continue to find ways to support students in need.

Educational leaders must be cautious in response to unwanted behaviors and how they choose to deal with them (Ford, 2017). Training and funding requirements to achieve an adequate amount of specialized education could be difficult for educational leaders to provide. Deciding specific staff development is key in ensuring staff members are receiving the correct training in relation to behavioral issues (Illinois ACEs Response Collaborative, n.d.).

### **Academic Development**

A quantitative research study completed by Blodgett (2014) explained that exposure to even one of the ACE increased the risk of poor child outcomes. It also indicated that developmental risk increased with increasing numbers of ACEs. Research conducted by Blodgett (2014) suggested there is a linear relationship between school problems (academic, attendance, and behavior) and amount of ACEs identified in students. The information suggested that, as more adverse experiences are identified, the percentage of students with academic problems increased.

Research conducted by Blodgett (2014) indicated that 34% of students have academic problems that are labeled with no known adverse events. 80% of students have academic problems that are labeled as having three or more adverse events. The research concludes that

students identified as having behavior problems are more likely to be associated with ACEs than students without. Additionally, Stempel et al.'s (2017) study on chronic absenteeism and Blodgett's (2014) study stated that the level of ACEs exposure is the principal predictor of attendance, academic, and behavior problems.

### **Trauma**

Trauma-informed practices are a growing focus for educational leaders (Terrasi & Crain de Galarce, 2017). Promoting trauma healing and resilience is an emphasis when identifying ACEs, and the steps needed to become trauma-informed (Terrasi & Crain de Galarce, 2017). Students with trauma may be unable to trust their educational environment and the people in it (Porche et al., 2011). Students with ACEs often have difficulty forming relationships with peers and adults (Porche et al., 2011). When students do not trust their environment, they become susceptible to anxiety and depression and are subject to unwanted behaviors. Trauma induced behaviors do not correlate well to academic success (Porche et al., 2011).

Early traumatic stress in school-aged learners affects psychological, social, and physiological development (Porche et al., 2011). The effect of traumatic stress disrupted academic achievement. Both internalizing and externalizing problem behaviors are experienced as a result of trauma which are problematic for school-aged learners in a school setting (Porche et al., 2011). Educational leaders focused on traumatic stress and trauma-informed practices work to use the identity of students with ACEs to build a framework in trauma-sensitive schools (Terrasi & Crain de Galarce, 2017).

### **Trauma-Sensitive Schools**

Trauma-sensitive schools have the potential to be positive places for helping children practice social, emotional, and behavior skills (Bruzell, Stokes, & Waters, 2016). Trauma-

sensitive schools enable educational leaders to respond to trauma and can provide safe learning environments for all students. Teachers that ensure a predictable classroom environment that work to develop strong relationships led to the development of regulatory abilities of students (Bruzell, Stokes, & Waters, 2016). Bruzell et al. (2016) and Terrasi and Crain de Galarace (2017) both agree that classroom environments play an important role in the development of students with ACEs. Creating a classroom and school environment engulfed in trauma-sensitive practices are important educational ideas in addressing the needs of students with ACEs (Bruzell (2016); Terrasi (2017)).

In trauma-sensitive schools, trauma-affected students come to see themselves as failures in the classroom and may not be able to communicate what they need or how to best support student learning (Terrasi & Crain de Galarce, 2017). Educational leaders who incorporate interventions such as self-regulation, mindfulness, and de-escalation found results in the students' abilities to manage classroom behaviors (Bruzell, Stokes, & Waters, 2016). Professional development for educational leaders, creation of services specific to families, students and staff, and updated policies assist in the process of creating trauma-sensitive schools (Terrasi & Crain de Galarce, 2017). A foundational approach using these factors when creating trauma-sensitive schools not only helps students with ACEs but help students without ACEs.

### **Resilience**

The development of high-quality peer relationships among students instilled lifelong resilience among school-aged learners who have experienced ACEs (Moses & Villodas, 2017). Resilience identified in school-aged learners with ACEs were 1.55 times more likely to be engaged in school and less likely to be a candidate for retention (Bethell et al., 2016).



Educational leaders who pay attention to school-aged learners with ACEs and help develop resilience provided immediate and long-term benefits (Bethel et al., 2014).

A qualitative study conducted by Bethell, Gombojav, Solloway, and Wissow (2016) focused on the United States population connected with emotional, mental, or behavior conditions (EMB) such as child resilience. The study uses data from the 2011-12 National Health Interview Survey which sampled 95,677 children ages 0-17. Analysis of the data was limited to children ages two to 17 based on whether a child has an emotional, mental, or behavioral condition. The research focuses on the prevalence of ACEs among school-aged learners with EMB.

Results of the research identified by Bethell et al. (2016) noted the prevalence of EMB among United States children ages two to 17 are 1.65 to 4.46 times higher for students with ACEs compared to those with no ACEs. Results showed US children with emotional, mental, or behavior conditions (EMB) have disproportionate exposure to potentially traumatizing ACEs, 70.7% EMB vs. 46.9% non-EMB. Neuroscience, developmental science, and social science provided explanations of trauma and chronic stress that result from ACEs. Together these sciences strengthened families and promoted child resilience and school success.

Measured in the study conducted by Bethell et al. (2016) were resilience and whether the child was able to stay calm and in control when faced with a challenge. The presence of resilience measured minimal when associated with ACEs. With resilience, children who experienced multiple ACEs had 1.85 times higher rates of school engagement and were 1.32 times less likely to miss 2 or more school weeks. Findings from Bethell et al. (2016) emphasized the importance of resilience and the quality of relationships in a child's ACEs status.

Diagnosing resilience begins with an assessment of exposure to adversity and the impact of risk factors on a children's experience of safety (Ungar, Ghazinour, & Richter, 2012)

A substantial number of adolescents who are exposed to ACEs do not experience negative outcomes despite being at a higher risk because of resilience (Moses & Villodas, 2017). The findings of Bethell et al. (2016) noted that resilience in students with ACEs are a positive developmental quality that can be beneficial in academic achievement.

### **Mental Health**

ACEs have been consistently linked to psychiatric difficulties in children (Schilling, Aseltine, & Gore, 2007). A qualitative study conducted by Schilling et al. (2007) collected data on seven community/school districts in the Boston Massachusetts metropolitan area consisting of two waves of personal interviews. The first wave of interviews consisted of 1,578 high school seniors from nine public schools. The second wave of interviews involved 1093 members of the first wave sample and occurred ten years after the first interview. School-aged learners in both samples answered a series of questions regarding the prevalence of ACEs in their lives.

The qualitative study by Schilling et al. (2007) indicated that there are strong associations between childhood adversity, depressive systems, and antisocial behavior. Findings from Schilling et al. (2007) suggested the need for prevention and intervention strategies targeting early ACEs and their mental health consequences. Limitations in the study emphasized noting the age when the adversities occurred to fully understand the specific factor of the mental health impact of ACEs.

Depression is one of the most prevalent mental health disorders among school-aged learners with ACEs (Brinker & Cheruvu, 2016). Educational leaders work to design and implement social and emotional support to students with ACEs. Social and emotional supports

help decrease the effects of depression. Supports educational leaders use to combat stress are proactive factors against depression and mental illness in students (Brinker & Cheruvu, 2016). Brinker & Cheruyyu (2016) indicated a need for prevention and intervention strategies targeting school-aged learners with ACEs and their mental health consequences.

Toxic stress is a predictor of poor mental health (Kerker et al., (2015). School-aged learners identified as having one or more ACE are prone to negative effects of toxic stress. Early school-aged learners associated with ACEs also have a greater likelihood of mental health problems (Kerker et al., (2015). Indicators of toxic stress and social development problems are linked to ACEs and mental health. Identifying underlying factors of ACEs linked to mental health can prevent health outcomes in school-aged learners (Kerker et al., (2015).

School mental health programs are associated with improved academic and social–emotional outcomes. Professionals from education and mental health disciplines have sound training and experience and need to play a critical role in delivering quality services to school-aged learners (Splett, Fowler, Weist, Mcdaniel, & Dvorsky, 2013). Educational leaders that emphasized the prevalence of mental health in school-aged learners and attributed it to ACEs are able to develop trauma-informed schools. Trauma-informed schools are able to address the mental health needs of students using multiple strategies and employing mental health professionals that guide academic achievement in school-aged learners (Terrasi & Crain de Galarce, 2017).

## **Conclusion**

The cumulative review of literature identified many factors contributing to ACEs in academic achievement of school-aged learners. The literature review identified chronic absenteeism, retention, dropout rates, behavior problems, and academic development as direct

causes of ACEs indicated in school-aged learners. Trauma, resilience, and mental health were also noted as positive and negative attributes of ACEs in school-aged learners. Educational leaders that identified students with ACEs and found specific programs or frameworks designed in relation to ACEs promoted higher levels of academic achievement in school-aged learners. The next chapter reviews the importance of identifying and helping students with ACEs in correlation with student achievement.

### **Chapter Three: Summary**

The cumulative review of literature in Chapter Two identified many factors contributing to ACEs in academic achievement of school-aged learners. The literature review also identified chronic absenteeism, retention, dropout rates, behavior problems, and academic development as direct causes of ACEs indicated in school-age learners. Trauma, resilience, and mental health were noted as positive and negative attributes of ACEs in school-aged learners. Chapter Three provides a summary coinciding with a review of the proposed problem, the importance of the proposed topic, and the summary of the main points of literature.

### **Review of the Proposed Problem**

The review of literature in Chapter Two focused on ACEs as a determining factor surrounding academic achievement in school-aged learners. Accumulation of risk factors in childhood greatly increased the odds of poor outcomes (Mitchell & O'Connor, 2013). ACEs and their relationship to chronic absenteeism, dropout rates, retention, academic development, and behavior problems were explored with proposed identification on how they affected student achievement in school-aged learners. Multiple strategies focused on chronic absenteeism, dropout rates, retention, academic development, and behavior problems in regard to ACEs were

explored to identify factors surrounding the development of academic achievement in school-aged learners.

The review of literature is also centered on trauma, resilience, and mental health, and their relation to ACEs and academic achievement in school-aged learners. Identifying factors of ACEs, how they pertain to student learning and achievement, and how to provide correct support is essential in helping students who experienced adversities in the form of ACEs (Illinois Response Collaborative, n.d.). Ultimately, the review of literature focuses on developing the understanding educational leaders need in response to ACEs and their underlying factors toward mental health and student achievement.

### **Importance of the Proposed Topic**

ACEs research originated from a study conducted by the Kaiser Permanente Company in the years 1995 to 1997. The Kaiser Permanente Company compared the relationship of health risk behavior in adulthood to the wide range of exposure of childhood emotional, physical, or sexual abuse, and household dysfunction during childhood. The results of the study indicated that there were strong correlations between the exposure to abuse or household dysfunction during childhood and multiple risk factors for several leading causes of death in adults (Felitti et al., 1998). The Kaiser Permanente study led to many additional studies focused on ACEs and the overall development of an individual.

ACEs are defined as traumatic experiences in a person's life occurring before the age of 18 that the individual recalls as an adult (Minnesota Department of Health, 2011). Examples of ACEs are physical abuse, mental abuse, sexual abuse, emotional abuse and neglect, intimate partner violence, mother treated violently, substance misuse within the household, household mental illness, parental separation or divorce, and incarcerated household members. The

importance of the literature review explores ACEs as an underlying theme and how they pertain to the academic abilities of school-aged learners.

Studies conducted on chronic absenteeism, dropout rates, retention, academic achievement, and behavior problems of students associated with ACEs allow educational leaders to note relationships in the development of school-aged learners and provided educational tools schools can use to help students academically. Further studies on trauma, resilience, and mental health provides additional insight into developmental qualities of ACEs and their impact on student achievement. Ultimately, cross-sectional analysis of the factors of ACEs, their relation to student achievement, and strategies educational leaders can use in relation to ACEs in school-aged learners provides data educational leaders can use to help school-aged learners thrive.

### **Summary of the Main Points of Literature**

The review of literature from Chapter Two focused on ACEs and their relation to determining factors in a school-aged learner's academic achievement. The literature review provided several key findings that answer the essential question. The key findings of the literature review also addressed the two questions that coincided with the essential question. Results from the literature review all pointed in the direction that ACEs contributed to the cause of chronic absenteeism, dropout rates, retention, academic development delays, and behavior problems. Each quantitative and qualitative study noted the impact of academic achievement in school-aged learners. Results from the studies emphasized that students with one or more ACE were at risk for chronic absenteeism, retention, dropping out of school, low academic achievement, and multiple unwanted behavior problems (Blodgett, 2014; Brookins, 2016; Hunt, 2017; Iachini, 2016; Stempel, 2017).

Described in the literature review, trauma, resiliency, and mental health also played a permanent role in the academic achievement of school-aged learners. Each qualitative and quantitative study on trauma, resiliency, and mental health noted the impact of academic achievement in school-aged learners. Results from the studies found that trauma, lack of resiliency, and poor mental health in association with ACEs contributed to poor academic achievement in school-aged learners (Bethell, 2016; Porche, 2011; Schilling, 2007)

Further explained in the literature review is the relation of ACEs to academic achievement in school-aged learners, and opportunities educational leaders can take in working to improve academic achievement among school-aged learners identified as having one or more ACE. The review focused on the underlying factors of ACEs and student achievement among school-aged learners. Each factor impacted by ACEs had a direct correlation to student achievement. Each factor also identified concepts and strategies educational leaders can use to help improve academic achievement of school-aged learners. Although each qualitative and quantitative study noted that ACEs had an impact on the academic achievement of school-aged learners, other research emphasized that with frameworks in place, students with ACEs can achieve at high academic levels.

#### **Chapter Four: Discussion and Application**

Chapter Three indicates that studies in Chapter Two identify that ACEs have a dominant effect on the academic achievement in school-aged learners. Chapter Three also indicates that students identified as having one or more ACEs, even though they are at risk for poor academic achievement, can thrive in educational settings. Chapter Four provides understandings obtained from research and how the research applies to educational leaders. Chapter Four also provides recommendations for future research in regard to ACEs, and how they are directly linked to

academic achievement in school-aged learners. Chapter Four provides a solid outlook for future ACE studies on student achievement in school-aged learners.

### **Insights Gained from the Research**

Predicting and reacting to ACEs exposure in children is an important topic educational leaders must work toward. Attending to ACEs in children may be the most powerful predictor of risk for schools compared to other common school risk indicators (Blodgett, 2014). Educational leaders, learning systems, and policymakers would do well to address ACEs as a critical developmental and school readiness risk in the general population (Blodgett et al., n.d.). Understanding the backgrounds of students, addressing ACEs as an important predictor into student achievement, and having interventions and counseling options in place help educational leaders counteract the negative effects ACEs have on the school population. Individual risk factors in childhood do not determine individual outcomes, but multiple ACEs greatly increases the odds of poor outcomes (Marie-Mitchell & O'Connor, 2013).

The first insight gained from research is that ACEs contribute to a multitude of factors in response to student achievement in school-aged learners. Chronic absenteeism, retention, dropout rates, behavioral problems, and poor academic achievement are direct result of students with one or more ACEs (Blodgett, 2014; Brookins, 2016; Hunt, 2017; Iachini, 2016; Stempel, 2017). Educational leaders must be fully aware and understand that student achievement in school-aged learners is negatively affected by ACEs and that many underlying factors contribute to the severity of ACEs (Stempel et al., 2017). Ultimately, school-aged learners who are identified as having one or more ACEs are at risk for retention, dropping out of school, being chronically absent, having negative behaviors, and having poor academic achievement.



The second insight gained from research is that chronic absenteeism, retention, dropout rates, behavioral problems, and poor academic achievement in relation to ACEs identified in school-aged learners can be positively influenced by interventions designed around specific frameworks. Multi-tiered support systems are designed around an increased awareness in ACEs, proactive interventions in response to ACEs, and specific intervention frameworks. These have allowed educational leaders the ability to promote the improvement of ACEs factors in academic achievement (Valencia, 2018). In addition, each framework and proactive intervention created needs to be specific in its response to what form of ACE exposure the school-aged learners experienced and what underlying factor the school-aged learner is subject to. Each framework that is not specific can produce interventions that may not work and ACEs exposure can continue to correlate to lower academic achievement in school-aged learners.

The third insight gained from research is that trauma, lack of resiliency, and poor mental health contributed to poor academic achievement in school-aged learners who are identified as having one or more ACEs (Bethell, 2016; Porche, 2011; Schilling, 2007). School-aged learners with trauma, lack of resiliency, and poor mental health can cause poor relationships with peers and adults, distrust in the learning environment, higher levels of anxiety, a sense of failure, and symptoms of depression (Schilling et al., 2007). Based on the research, each sign can have a direct relation to ACEs and an impact on student achievement.

The fourth insight gained from research is that trauma-sensitive schools are effective forms of education that educational leaders can provide for students identified as having one or more ACE. Trauma-sensitive schools emphasized that educators think differently about how they observe their classrooms. Instead of thinking students are being defiant on purpose, they can try to understand them as signs of trauma (Martin, Cromer, & Freyd, 2010). Trauma-sensitive

schools work to build classroom environments that support resilience, teach social and emotional skills, and practice self-regulation (Terrasi & Crain de Galarce, 2017). The more educational leaders work to understand how traumatic experiences affect student learning, the more proactive educational leaders can be in creating trauma-sensitive learning environments (Terrasi & Crain de Galarce, 2017).

In addition, trauma-sensitive schools allow educational leaders to incorporate positive interventions such as self-regulation and mindfulness which promote positive behavior supports for many factors associated with ACEs (Bruzell, Stokes, & Waters, 2016). Trauma-sensitive schools are positive places for helping children with social, emotional, and behavior skills which allow educational leaders and staff members to respond to ACEs and the factors associated with ACEs (Terrasi & Crain de Galarce, 2017). Ultimately, trauma-sensitive schools provide a foundation for educational leaders to combat ACEs exposure in school-aged learners and provide an educational system designed to be fully aware of ACEs, and how they affect learners (Brezell (2016); Terrasi (2017).

### **Application**

The first example of application of research into ACEs and how they affect academic achievement in school-aged learners is understanding that 48% of United States children have experienced one or more ACE which translates into an estimated 35,825,978 children nationwide (National Survey of Children's Health, 2017). Students educational leaders come into contact with can be candidates for having ACEs. Fully understanding that almost one out of two students may have some form of ACE allows educational leaders to identify and provide appropriate means of interventions to provide assistance to students with ACEs.

The second example of application of research into ACEs and how they affect academic achievement in school-aged learners is the ability to use the identification of students with ACEs and provide appropriate means of interventions and programs to support school-aged learners. Based on the research in Chapter Two, it has been identified that ACEs can lead to chronic absenteeism, retention, dropping out of school, poor behavioral problems, and academic problems (Blodgett, 2014; Brookins, 2016; Hunt, 2017; Iachini, 2016; Stempel, 2017). Understanding ACEs contribute to many forms of factors identified as causing negative effects in relation to academic achievement, educational leaders can create frameworks designed around interventions. These interventions should be drafted according to underlying factors associated with ACEs (Illinois ACEs Response Collaborative, n.d.).

Intervention frameworks created by educational leaders must adhere to the differences in each ACE and how they are represented in school-aged learners (Hunt et al., 2017). Students who are identified as having one or more ACE are not all associated together as having the same educational outcomes. School-aged learners may be identified (chronically absent, a candidate for retention, problem behavior, etc.) and need different interventions in order to combat their exposure to ACEs and work to improve their academic achievement (Terrasi & Crain de Galarce, 2017). The application of interventions directly related to certain forms of ACEs and their underlying factors can contribute to improved academic achievement.

The third example of application of research into ACEs and how they affect academic achievement in school-aged learners is exploring trauma-sensitive schools and their ability to build classroom environments that support ACEs exposure. The more educational leaders understand how traumatic experiences affect student learning, the more proactive educational leaders can be in creating trauma-sensitive learning environments (Terrasi & Crain de Galarce,

2017). Educational leaders who create trauma-sensitive schools are able to provide classrooms where students identified as having ACEs have the supports they need to help improve their educational experiences (Terrasi & Crain de Galarce, 2017). In return, trauma-sensitive schools in relation to supports and interventions provided to school-aged learners with ACEs can work to not only improve school-aged learners' experiences, but ultimately improve academic achievement (Brezell (2016); Terrasi (2017)).

### **Recommendations for Future Research**

The literature in Chapter Two provides many important ideas about the impact of ACEs on the academic achievement of school-aged learners. The ideas surrounding ACEs, their impact on student achievement, and options to improve the overall learning ability of school-aged learners are discussed. Although the literature provides many important ideas about the impact of ACEs on the academic achievement of school-aged learners, future research is needed to provide educational data in regard to ACEs and student achievement.

The first recommendation for future research is to explore the severity of each ACE exposure. In the study conducted by Stempel et al. (2017), it notes that students who are absent from school are at risk academically for dropping out of school and that multiple ACEs are linked to chronic absenteeism. The severity of each ACE exposure is not identified in the study by Stempel et al. (2017). Understanding the severity of each ACE exposure can provide valuable insight into if the severity of each ACE contributes to a lower rate of academic achievement among school-aged learners. The severity of each ACE exposure can also provide educational leaders with valuable data they need in order to provide appropriate intervention frameworks designed to improve academic achievement in school-aged learners exposed to ACEs.

The second recommendation for future research is related to studies on retention and school-aged learner dropout rates. Students with two or more ACEs are 2.67 times more likely to repeat a grade in school compared to children without any of the experiences. Children without ACEs have 2.59 greater odds of usually or always being engaged in school, compared to students who have two or more ACEs (Berthell et al., 2016). Having at least one ACE increased the risk of repeating a grade (Iachini et al., 2016). Cumulative ACEs are associated with poorer school engagement and grade completion (Bellis et al., 2014). These factors contributed to the understanding that students with ACEs have a higher potential to drop out of school or having to repeat a grade. The data does not show which specific ACE or ACEs are linked to a higher percentage of school-aged learners dropping out of school or repeating a grade. Frameworks identified that school-aged learners with ACEs can provide assistance with lowering the dropout rate of school-aged learners (Renaud, 2013). More research is needed to identify specific ACEs that directly relate to dropout rates and retention so frameworks can be built around these particular causes to improve academic achievement.

The third recommendation for future research is related to framework building and intervention strategies associated with ACEs and the underlying causes of ACEs. ACEs exposure in school-aged learners can be addressed through proper building of frameworks and intervention strategies designed to increase academic achievement. Research explained schools who have a multi-tiered support system to increase attendance and decrease chronic absenteeism know the needs of their school and how a proactive approach can improve student attendance (Valencia, 2018). Programs and frameworks should be designed around the data-driven needs of the district (Genao, 2015). Focusing on how to address ACEs and working toward establishing emerging

interventions such as trauma-informed curriculums and community-oriented strategies are key in addressing behavioral problems (Ford, 2017).

Each form of research provides information on what is needed to assist educational leaders in providing appropriate educational frameworks, programs, and interventions, but failed to mention the specifics of how they work. Future research is needed to find specific details about how frameworks, programs, and interventions work, and best practices educational leaders need to use to improve academic achievement in school-aged learners. Future research is also needed in identifying which specific frameworks, programs, and which interventions are to be used for specific ACEs in school-aged learners. This can allow educational leaders to build the correct frameworks, programs, and interventions that meet the educational needs of their students.

Although more research is needed in regard to ACEs and their impact on academic achievement in school-aged learners, studies respond to the research questions. Multiple studies have identified factors determining how ACEs affect academic achievement in school-aged learners and give specific facts about the direct outcomes ACEs exposure has on academic achievement. Using the research described in the paper, as well as the ideas surrounding future research, educational leaders can continue to work to provide the best possible educational opportunities for school-aged learners associated with ACEs.

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